elements **20** can be centered in the longitudinal direction **240**. Alternatively, however, the leakage prevention elements **20** can be located off the transverse centerline **243** of the adult garment **14** (not shown). Likewise, the leakage prevention elements **20** can be centered in the transverse direction **242** or can be located off the longitudinal centerline **241** of the adult garment **14** (not shown).

[0107] The leakage prevention element **20** includes an active barrier **22**. The size and shape of the active barrier **22** can vary widely. For example, an individual active barrier **22** can be rectangular and measure about 4 cm. (1.6 in) by about 7 cm. (2.8 in). Alternatively, the active barrier **22** can be in the form of strips (not shown) that extend over the full length or width of the absorbent article **10**. As noted previously, the active barrier **22** is positioned and adapted to create a distinct physical sensation upon the absorbent article **10** approaching fullness. The physical sensation can be a pressure change such as from an expandable element or a physical contact from a moving element.

[0108] In one aspect of the present disclosure illustrated in FIGS. **5**A and **5**B, the leakage prevention element **20** is adapted to provide the wearer with an expanding or contracting dimensional change sensation using an active barrier **22**. Dimensional change elements of this type are described in more detail in U.S. Pat. No. 5,649,914 to Glaug et al., the contents of which are incorporated herein by reference to the extent that they are consistent (i.e., not in conflict) herewith. The leakage prevention element **20** includes an active barrier **22** positioned on or within the absorbent article **10**.

[0109] The active barrier **22** includes a material or materials that rapidly undergo a change in at least one dimension when exposed to an aqueous solution such as urine, menses, or other body exudate. The dimensional change is suitably either as an expansion to at least about 2 times a dry dimension or as a contraction to less than about one-half (½) of the dry dimension. In particular aspects, the dimensional change is either an expansion to at least about 5 times the dry dimension or a contraction to less than about one-fifth (⅕) of the dry dimension. In one example, the active barrier **22** has a wet height dimension that is at least about 5 times greater than its dry height dimension, and more desirably at least about 10 times greater for improved performance.

[0110] Another representative example is illustrated in FIGS. **5**A and **5**B. The active barrier **22** of height H is shown in FIG. **5**A in its compressed or dry state, where element **18** generally refers to an absorbent assembly, and element **19** generally refers to a bodyside liner. The same active barrier **22** is shown in FIG. **5**B in its wetted state, with a height of H'. The height dimension of the active barrier **22** is perpendicular to the plane formed by the longitudinal centerline **41**, **141**, **241** and transverse centerline **43**, **143**, **243** of the absorbent article **10** so that the dimensional change is noticeable to the wearer of the absorbent article **10**. The other dimensions, the width and length, of the active barrier **22** can remain the same, expand, or contract when exposed to an aqueous solution.

[0111] In one particular aspect, the active barrier **22** includes a compressed cellulose sponge having a dry height of about 0.9 mm and a wet height of about 9.5 mm. The height dimensions are measured with the material under a compressive load of 0.2 pounds per square inch. The noncompressed axes of the material, that is the width and length, expand only about 7 percent from dry to wet states.

[0112] In one aspect of the present disclosure, the active barrier **22** is capable of expanding to at least about 5 times its dry height in 10 seconds, and more particularly to at least about 10 times its dry height in 3 seconds for improved performance.

[0113] Suitable materials for use in the active barrier **22** include expandable foams, compressed cellulose sponges, superabsorbents, or the like. Particularly, desirable expandable foams include those having open, large cell, reticulated structures. Examples of such expandable foams are available from 3M of Tonawanda, N.Y., U.S.A., and Industrial Commercial Supply Co. of Akron, Ohio, U.S.A. The material forming the dimensional change member **22** can be softened by mechanical means or other suitable techniques so as to be less noticeable until urination occurs. One such means that is effective with compressed cellulose sponge is to run the material through a set of meshed gears with the gap between the gears set so that the material is sufficiently scored to make it pliable.

[0114] As illustrated in FIGS. **6**A and **6**B, the leakage prevention element **20** can include a substance that expands when the substance is contacted by urine or other body exudates, as is described in more detail below. That substance can be in the form of particles **421** captured between a pair of containment layers **422** or mixed into the absorbent assembly **460** or other material. The containment layers **422** form a container **424** to house and limit movement of the substance.

[0115] The leakage prevention element **20** can include an active barrier **22** constructed so that urine or other body exudates either enters the container **424** directly through the containment layers **422**, is transported into the container **424** by the transport member, or both. Where urine or other body exudates is transported into the container **424**, for example, the containment layers **422** can include a liquid impermeable material, such as a liquid impermeable film, a liquid impermeable nonwoven web, or the like. By either or both methods, urine or other body exudates will come into contact with the active barrier **22**. The active barrier **22** will produce a physical sensation. As a result, the wearer will experience that physical sensation when the absorbent assembly **460** is approaching fullness to indicate to the wearer that potential leakage is imminent.

[0116] As illustrated in FIGS. **6**A and **6**B, the dimensional change member **428** can be a urine- or -other-body-exudates-permeable inflatable container **424** positioned between the bodyside liner **464** and the absorbent assembly **460**. Dimensional change elements **428** of this type are described in more detail in U.S. Pat. No. 7,002,055 to Long et al., the contents of which are incorporated herein by reference to the extent that they are consistent (i.e., not in conflict) herewith. The inflatable container **424** can include a surfactant and a system that, upon wetting with urine or other body exudates, produces a gas, such as carbon dioxide. The gas produced upon wetting with urine or other body exudates interacts with the surfactant to produce a foam that inflates the container **424**. The inflated container **424** pushes against the bodyside liner and causes the bodyside liner to press against the skin of the wearer to alert the wearer that the absorbent assembly **460** is nearing fullness.

[0117] The container **424** can be suitably formed from either woven or nonwoven substrates that are substantially liquid permeable to allow liquids, such as urine, to pass therethrough and contact the gas producing system and surfactant described herein. In one aspect, the inflatable liquid permeable container **424** can be formed from a 20 gsm spunbond nonwoven material available from Kimberly-Clark Corpora-